

WHAT IS CLAIMED IS:

1           1.     A method for converting text to concatenated voice by  
2     utilizing a digital voice library and a set of playback rules, the digital voice library  
3     including a plurality of speech items and a corresponding plurality of voice  
4     recordings wherein each speech item corresponds to at least one available voice  
5     recording wherein multiple voice recordings that correspond to a single speech item  
6     represent various inflections of that single speech item, the method including  
7     receiving text data, converting the text data into a sequence of speech items in  
8     accordance with the digital voice library, the method further comprising:

9                 establishing multiple voice recordings in the digital voice library that  
10    correspond to a single inflection of a single speech item, for a plurality of inflections  
11    of a plurality of speech items, that represent various ligatures for the single  
12    inflection of the single speech item with adjacent speech items.

1           2.     The method of claim 1 wherein the multiple voice recordings  
2     in the digital voice library that correspond to a single inflection of a single speech  
3     item, for a plurality of inflections of a plurality of speech items, represent various  
4     ending ligatures for ending phonemes of the single inflection of the single speech  
5     item with beginning phonemes of adjacent speech items.

1           3.     The method of claim 1 wherein the multiple voice recordings  
2     in the digital voice library that correspond to a single inflection of a single speech  
3     item, for a plurality of inflections of a plurality of speech items, represent various  
4     beginning ligatures for beginning phonemes of the single inflection of the single  
5     speech item with ending phonemes of adjacent speech items.

1           4.     The method of claim 1 wherein the multiple voice recordings  
2     in the digital voice library that correspond to a single inflection of a single speech  
3     item, for a plurality of inflections of a plurality of speech items, represent various  
4     beginning and ending ligatures for beginning and ending phonemes of the single  
5     inflection of the single speech item with ending and beginning phonemes of adjacent  
6     speech items.

1                   5.     The method of claim 4 wherein the ligatures include ligatures  
2     associated with vowel staging.

1                   6.     The method of claim 5 wherein the ligatures include ligatures  
2     associated with vowel staging, consonant staging, and fricative consonant staging.

1                   7.     The method of claim 1 wherein the ligatures include ligatures  
2     associated with vowel staging.

1                   8.     The method of claim 7 wherein the ligatures include ligatures  
2     associated with vowel staging, consonant staging, and fricative consonant staging.

1                   9.     A method for converting text to concatenated voice by  
2     utilizing a digital voice library and a set of playback rules, the digital voice library  
3     including a plurality of speech items and a corresponding plurality of voice  
4     recordings wherein each speech item corresponds to at least one available voice  
5     recording wherein multiple voice recordings that correspond to a single speech item  
6     represent various inflections of that single speech item, the method including  
7     receiving text data, converting the text data into a sequence of speech items in  
8     accordance with the digital voice library, the method further comprising:  
9                   establishing multiple voice recordings in the digital voice library that  
10     correspond to a single inflection of a single speech item, for a plurality of inflections  
11     of a plurality of speech items, that represent various ligatures for the single  
12     inflection of the single speech item with adjacent speech items;  
13                   determining a desired inflection for each speech item in the sequence  
14     of speech items based on the set of playback rules;  
15                   determining a sequence of voice recordings by determining a voice  
16     recording for each speech item based on the desired inflection for the particular  
17     speech item, the available voice recordings that correspond to the particular speech  
18     item, and the ligatures for the particular speech item with adjacent speech items; and  
19                   generating voice data based on the sequence of voice recordings by  
20     concatenating adjacent recordings in the sequence of voice recordings.

1                   10.     The method of claim 9 wherein the multiple voice recordings  
2     in the digital voice library that correspond to a single inflection of a single speech  
3     item, for a plurality of inflections of a plurality of speech items, represent various  
4     ending ligatures for ending phonemes of the single inflection of the single speech  
5     item with beginning phonemes of adjacent speech items, and  
6                   wherein determining the sequence of voice recordings by determining  
7     a voice recording for each speech item is further based on ending ligatures for  
8     ending phonemes of the particular speech item with beginning phonemes of adjacent  
9     speech items.

1                   11.     The method of claim 9 wherein the multiple voice recordings  
2     in the digital voice library that correspond to a single inflection of a single speech  
3     item, for a plurality of inflections of a plurality of speech items, represent various  
4     beginning ligatures for beginning phonemes of the single inflection of the single  
5     speech item with ending phonemes of adjacent speech items, and  
6                   wherein determining the sequence of voice recordings by determining  
7     a voice recording for each speech item is further based on beginning ligatures for  
8     beginning phonemes of the particular speech item with ending phonemes of adjacent  
9     speech items.

1                   12.     The method of claim 9 wherein the multiple voice recordings  
2     in the digital voice library that correspond to a single inflection of a single speech  
3     item, for a plurality of inflections of a plurality of speech items, represent various  
4     beginning and ending ligatures for beginning and ending phonemes of the single  
5     inflection of the single speech item with ending and beginning phonemes of adjacent  
6     speech items, and  
7                   wherein determining the sequence of voice recordings by determining  
8     a voice recording for each speech item is further based on beginning and ending  
9     ligatures for beginning and ending phonemes of the particular speech item with  
10    ending and beginning phonemes of adjacent speech items.

